

# TOSHIBA

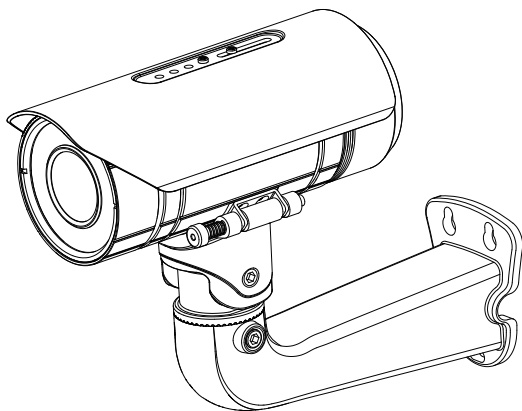
Leading Innovation >>>

## NETWORK CAMERA

### Model: IK-WB81A

## Quick Start Guide and Important Safeguards

This guide describes the hardware installation.



Refer to the user's manual (PDF file) contained in the CD-ROM for settings, operations and other information.

The application Adobe® Reader® is needed to view PDF files. If you do not have this application, download it from the Adobe Systems Incorporated website.

■ <http://www.adobe.com/>

For information on our latest products and peripheral devices, refer to the following Website:

■ <http://www.toshibasecurity.com>

If the URL changes, refer to the Toshiba website (<http://www.toshiba.com>).

# Introduction

## FCC (USA)-INFORMATION

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**CAUTION:** Your authority to operate this FCC verified equipment could be voided if you make changes or modifications not expressly approved by the party.

## Industry Canada -INFORMATION

CAN ICES-3 A / NMB-3 A

Thank you for purchasing the IK-WB81A Network Camera. Before using the camera, read this Quick Start Guide and Important Safeguards carefully to ensure correct usage. After reading this Quick Start Guide and Important Safeguards, save it for future reference.

The design, specifications, software, and quick start guide contents are subject to change without prior notice.

## Terms

- The term "OS" is used in this manual to indicate operating systems compatible with this product.
  - Microsoft® Windows® XP xxx Edition
  - Microsoft® Windows Vista® Business Edition
  - Microsoft® Windows® 7 Professional Edition

## NOTE

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- The performance of the network camera may vary depending on the network environment.

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# Important Safeguards

## 1. Read Instructions

Read all the safety and operating instructions before operating the product.

## 2. Retain Instructions

Retain the safety instructions and user's manual for future reference.

## 3. Warnings

Comply with all warnings on the product and in the user's manual.

## 4. Follow Instructions

Follow all operating and use instructions.

## 5. Cleaning

Disconnect this camera from the power supply before cleaning.

## 6. Attachments

Do not use attachments not recommended by the camera manufacturer as they may pose safety risks.

## 7. Accessories

Do not place this camera on an unstable cart, stand, tripod, bracket or table. The camera may fall, causing serious injury to a person, or serious damage to the product. Use only with stand, tripod, bracket, or table recommended by the manufacturer, or sold with the camera. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

## 8. Ventilation

This camera should never be placed near or over a radiator or heat register. If this product is placed in a built in installation verify that there is proper ventilation so that the camera temperature operates within the recommended temperature range.

## 9. Power Sources

This camera should be operated only from the type of power source indicated on the information label. If you are not sure of the type of power supply at your location, consult your product dealer.

## 10. Power-Cord Protection

Power cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, screws and the point where they exit the product.

## 11. Installation

Install this camera on a secure part of the ceiling or wall. If installed on an unsecured location, the camera could fall causing injury and damage.

## 12. Lightning

For additional protection on this camera during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the power supply and cable system. This will prevent damage to the camera due to lightning and power-line surges. If lightning occurs, do not touch the unit or any connected cables in order to avoid electric shock.

## 13. Overloading

Do not overload the power supply or extension cords as this can result in a risk of fire or electric shock.

## 14. Object and Liquid Entry

Never push objects of any kind into this camera through openings as they may touch dangerous electrical points or short-out parts that could result in a fire or electrical shock. Never intentionally spill liquid of any kind on the camera.

## 15. Servicing

Do not attempt to service this camera yourself as opening or removing covers may expose you to dangerous electrical or other hazards. Refer all servicing to qualified service personnel.

## 16. Damage Requiring Service

Disconnect this camera from the power supply and refer servicing to qualified service personnel under the following conditions.

- a. When the power-supply cord or plug is damaged.
- b. If liquid has been spilled, or objects have fallen into the camera.
- c. If the camera has been submerged in water.
- d. If the camera does not operate normally by following the operating instructions in the user's manual. Adjust only those controls that are covered by the user's manual as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the camera to its normal operation.
- e. If the camera has been dropped or the cabinet has been damaged.
- f. When the camera exhibiting a distinct change in performance which indicates a need for service.
- g. Other trouble.

## 17. Replacement Parts

When replacing parts be sure the service technician uses parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

## 18. Safety Check

Upon completion of any service or repairs to this camera, ask the service technician to perform safety checks to determine that the camera is in proper operating condition.

# Important Safeguards (Cont.)

CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK.  
DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER  
SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

## **WARNING:**

TO REDUCE THE RISK OF FIRE OR  
ELECTRIC SHOCK, DO NOT SUBMERGE  
THIS CAMERA IN WATER.

## **FIELD INSTALLATION MARKING:**

WORDED: "THIS INSTALLATION SHOULD BE MADE BY A QUALIFIED SERVICE  
PERSON AND SHOULD CONFORM TO ALL LOCAL CODES."

This product is intended to be supplied by a UL Listed Power Adapter output rated 12 Vdc, minimum 0.8A (for General I/O Terminal Block) or a UL Listed AC Power Source output rated 24 Vac, 50-60Hz, minimum 0.8A (for General I/O Terminal Block).

# Notes on Use and Installation

- **Do not aim the camera at the sun**

Never aim the camera at the sun even with the camera power off.

- **Do not shoot intense light**

Intense light such as a spotlight may cause a bloom or smear. A vertical stripe may appear on the screen. However, this is not a malfunction.

- **Treat the camera with care**

Dropping or subjecting the camera to intense vibration may cause it to malfunction.

- **Avoid Volatile Liquid**

Do not use volatile liquids, such as an insect spray, near the unit. Do not leave rubber or plastic products touching the unit for a long time. They will leave marks on the finish. Do not use a chemically saturated cloth.

- **Never touch internal parts**

Do not touch the internal parts of the camera other than the parts specified.

- **Do not submerge in water**

The camera has some protection to water (see IP rating), and can be used indoors or outdoors. If the camera was submerged in water, turn off the power and contact your dealer.

- **Keep the camera installation away from video noise**

If cables are wired near electric lighting wires or a TV set, noise may appear in images. In this event relocate cables or reinstall equipment.

- **Check the ambient temperature and humidity**

Avoid using the camera where the temperature is hotter or colder than the specified operating range. Doing so could affect the internal parts or cause the image quality to deteriorate. Special care is required to use the camera at high temperature and humidity.

- **Should you notice any trouble**

If any trouble occurs while you are using the camera, turn off the power and contact your dealer. If you continue to use the camera when there is something wrong with it, the trouble may get worse and an unpredictable problem may occur.



# Setting the Network Camera Environment

## Items needed for network camera monitoring

### ● Administrator's personal computer

The personal computer that allows setting, operating, monitoring and other functions with the network camera is called the "administrator's personal computer" in this guide.

\* The personal computer for viewing monitored images is called the "user's personal computer" in this quick start guide. The network camera can be viewed by more than one personal computer at the same time.

### ● Recommended personal computer system requirements:

- Windows® XP, Windows Vista® Business, or Windows® 7 professional.
- Internet Explorer® Ver 8.0
- CPU: Intel® Core™ 2 Duo 2GHz or greater
- Memory: 1GB RAM or greater

### ● Connection equipment such as Ethernet cables, and switch or router.

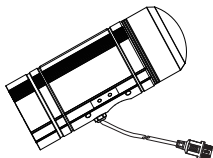
- The LAN cable type differs depending on the connection method.

### ● Camera search application "Installation Wizard"

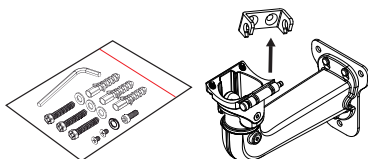
- Install this application from the CD-ROM supplied as an accessory (Double-click "Setup.exe" in the CD-ROM and install the application by following the onscreen instructions.)
- This application is the tool to discover the IP address of a camera. Using this application, the IP address of a camera can be easily determined.

# Package Contents

- IK-WB81A



- Wall Mount Bracket Kit  
Wall Mount Plate  
Screw and Anchors Kit  
Wrench



- AV Out Cable



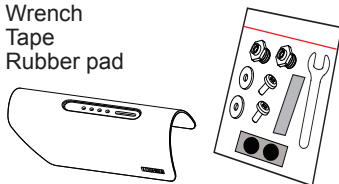
- Waterproof Connector



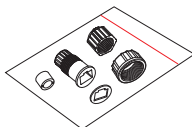
- Quick Start Guide and Important Safeguards



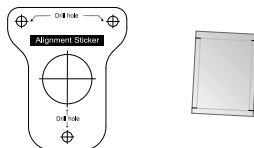
- Sun Shield Kit  
Wrench  
Tape  
Rubber pad



- Waterproof Connector for RJ45  
Ethernet Enclosure



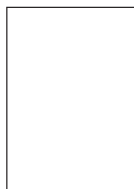
- Alignment Sticker / Silica Gel



- CD-ROM

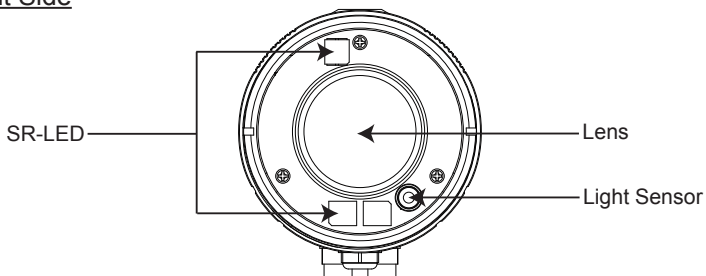


- Warranty

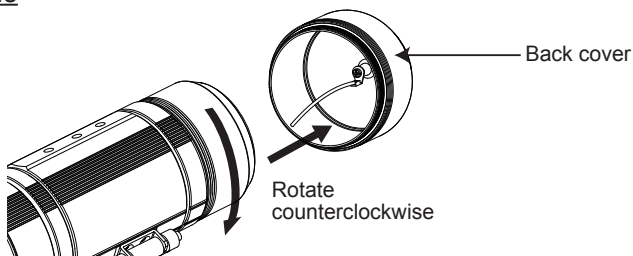


# Physical Description

## Front Side



## Back Side



### Pin Definition

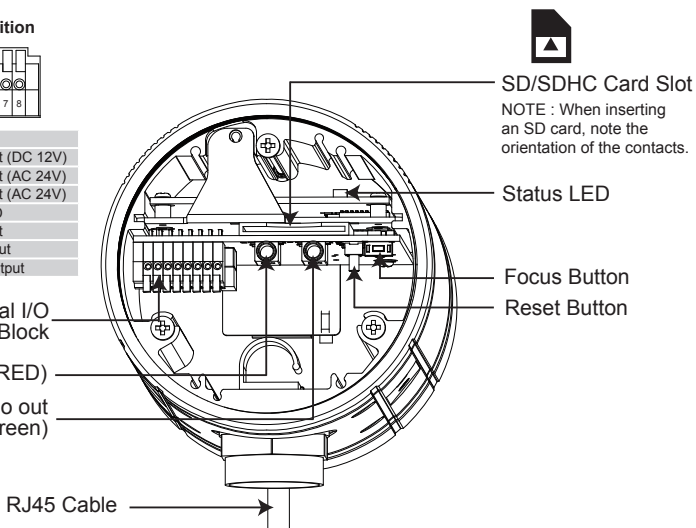


1	GND
2	Power input (DC 12V)
3	Power input (AC 24V)
4	Power input (AC 24V)
5	Signal GND
6	Digital Input
7	Digital output
8	12V DC Output

General I/O  
Terminal Block

MIC In (RED)

Audio/Video out  
(Green)



# Hardware Installation

## Notes:

- The attached screws and anchors are used to install the camera to a solid surface. (e.g. concrete) If installing to loose or thin material surfaces , use the appropriate anchors (not included) with the screws.
- Install the camera tightly.

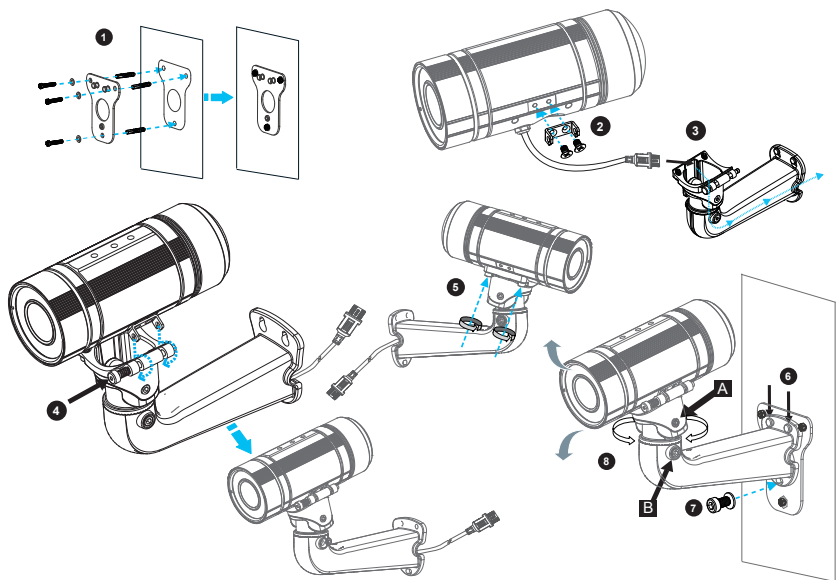
## Operating environment

-30 °C ~ +50 °C {-22 °F ~ 122 °F}

When the camera is installed and operated in low temperatures below -10 °C {14 °F}, normal images may not be obtained immediately after startup. In such a case, wait until the camera warms up (taking more than 1 hour) and start adjustment after turning on the power again.

## Mounting the camera to a solid surface

1. Attach the alignment sticker to the wall. Drill three pilot holes ( $\Phi$  9.5mm x 40mm(D) ( $\Phi$  0.37inch x 1.57inch(D) )) and one big hole through the four circles on the sticker. Then hammer the supplied plastic anchors into the holes and secure the plate with supplied screws.
2. Fix the supplied bracket to the side of the Network Camera with two screws.
3. Feed the RJ45 cable through the front opening of the wall mount bracket. (If you want to use external devices such as sensors and alarms, please refer to the assembling steps on page 14.)
4. Push the spring bolt and hook the bracket onto the groove of the wall mount bracket.
5. Secure the two screws on the other side of the wall mount bracket.
6. Hang the wall mount bracket on the plate.
7. Fix the wall mount bracket with the supplied screw and spring washer.
8. Loosen the screw A and B with supplied wrench, and adjust the angle of the wall mount bracket to aim at the shooting area. Then, secure the screw A and B with supplied wrench.
9. Attach rubber pad on the screw A.



**CAUTION**

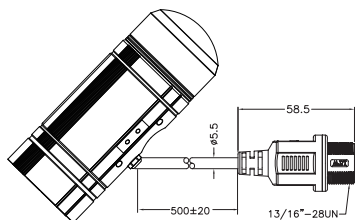
- Installation should be done only by qualified personnel and conform to all local codes.
- Install this camera on a firm and solid part of the wall.

If installed improperly or on a weak surface, the camera could fall causing injury and damage.

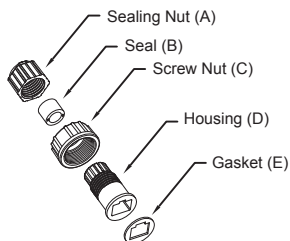
# Cabling Assembly

## RJ45 Cable Connector

### ● RJ45 Cable Dimension (unit: mm)



### ● Components of the Waterproof Connector



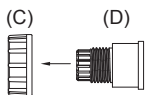
### ● Assembly Steps

- 1 Prepare an Ethernet cable and strip part of the sheath.

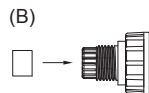
12 mm

Recommended cable gauge: 24AWG (0.51 mm)

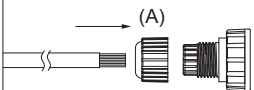
- 2 Insert the housing into the screw nut.



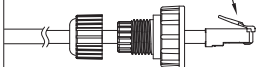
- 3 Insert the seal into the housing.



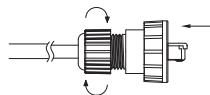
- 4 Insert the stripped Ethernet cable through the sealing nut and the housing.



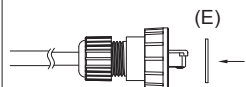
- 5 Clamp the cable with an RJ45 plug.



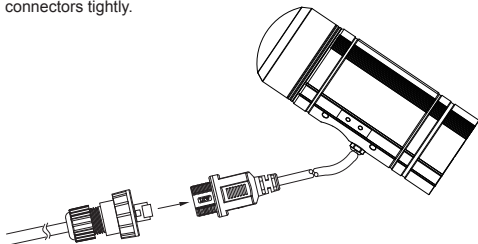
- 6 Push the RJ45 plug into the housing, then secure the sealing nut tightly.



- 7 Attach the gasket to the front of the housing.

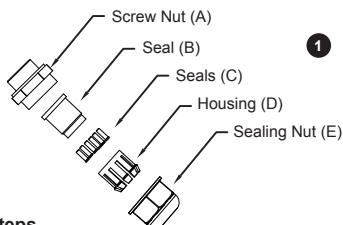


- 8 Connect the Ethernet cable to the RJ45 cable and secure the connectors tightly.



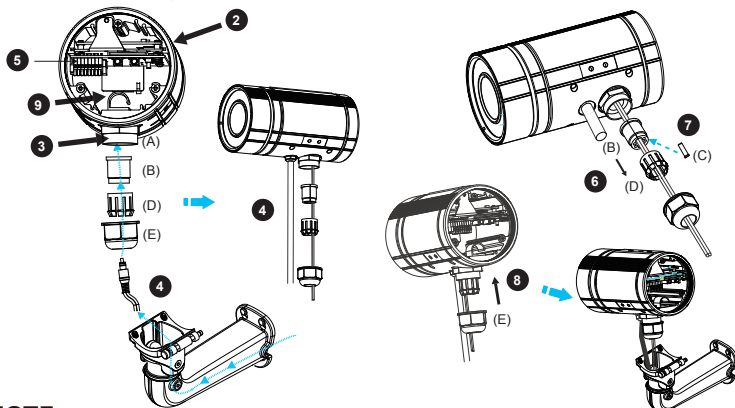
## Waterproof Connector

### ● Components of the Waterproof Connector



### ● Assembling Steps

1. Disassemble the components of the waterproof connector into part (A) ~ (E) as shown above.
2. Open the back cover of the Network Camera.
3. Remove the rubber stopper from the bottom of the Network Camera and secure the screw nut (A) tightly.
4. If you need extra power for external devices, please feed the power cable through the wall mount bracket and the waterproof connector (E --> D --> B --> A) as the illustration shows below. Then connect the power cord to the socket. Note: There are 7 holes on the seal (B), and the widest hole with a notch on the side is specific for power cord.
5. If you have external devices such as sensors and alarms, feed the cables through the wall mount bracket and the waterproof connector (E --> D --> B --> A) as the illustration shown below. Then refer to the pin definition to connect them to the general I/O terminal block. Note: The recommended cable gauge is 2.0 ~ 2.8 mm.
6. Push the seal (B) into the housing (D).
7. Insert the seals (C) into the empty holes on the seal (B) to avoid moisture.
8. Secure the sealing nut (E) tightly.
9. Clamp all cables, finally.



### NOTE

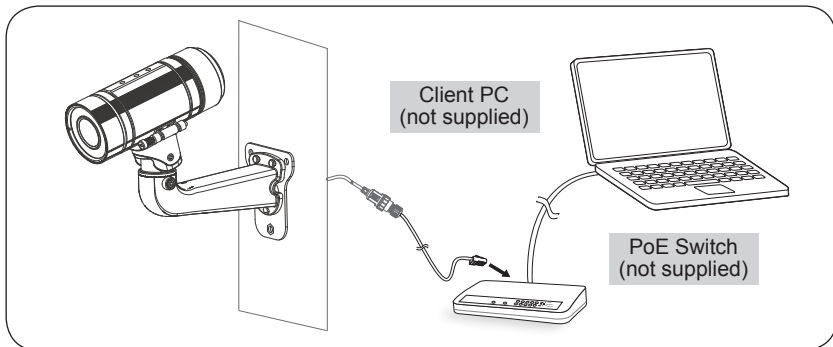
When using this waterproof connector, don't use attached bracket to hook the camera to the wall mount bracket.

# Network Deployment

## Power over Ethernet (PoE)

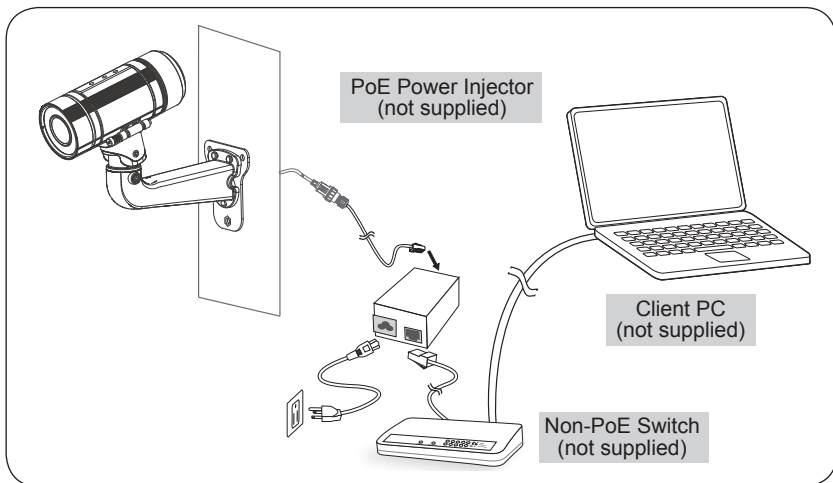
### ● When using a PoE-enabled switch

The Network Camera is PoE-compliant, allowing transmission of power and data via a single LAN cable. see the following illustration to connect the Network Camera to a PoE switch via LAN cable.



### ● When using a non-PoE switch

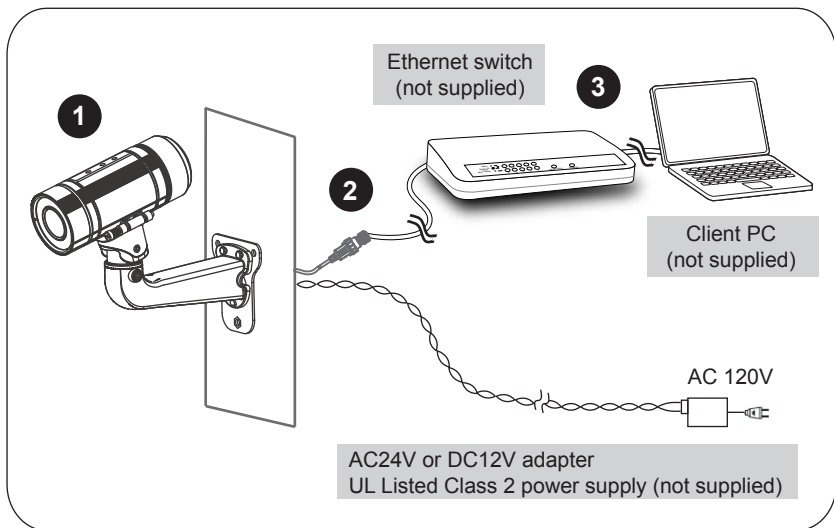
Use a PoE power injector (not supplied) to connect between the Network Camera and a non-PoE switch.





## ● General Connection (without PoE)

1. Connect the Network Camera to an Ethernet switch via LAN cable.
2. Connect the power cable from a power unit (not supplied) to the appropriate port of the general I/O terminal.  
(See page 11).
3. Connect the PC to an Ethernet switch via Ethernet cable.

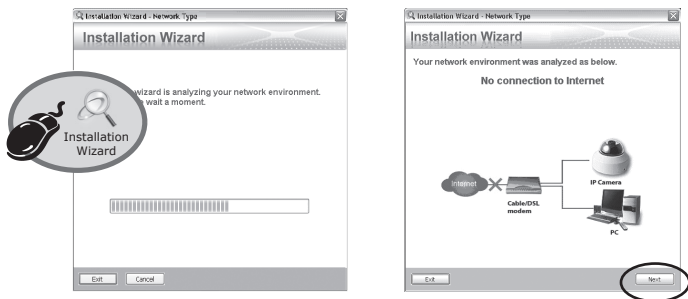


## ⚡ CAUTION

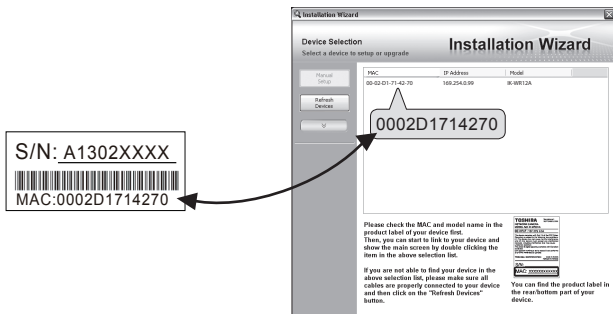
- Recommended power cord is twisted pair line with a minimum wire size of 18 AWG.
- When PoE is connected, don't supply AC24V or DC12V from the I/O terminal.
- Never input AC24V and DC12V at the same time.

# Assigning IP Address

1. Install the "Installation Wizard" under the Software directory from the CD-ROM.
2. The program will analyze your network environment. After your network is analyzed, please click on the "Next" button to continue the program.



3. The program searches for other Network Cameras on the same network.
4. After searching, the main installer window will pop up. Double click on the MAC address of the appropriate device to connect to the Network Camera.



## NOTE

- If "Installation Wizard" does not find the camera during the search, try turning off the wireless LAN of a PC.
- Installation Wizard can search the location of the Network Camera even though DHCP is not used on the network. In this scenario, assign the camera a static IP address because the IP address of the Network Camera has been assigned 169.254.\*.\* by default.

# Retrieving Images

1. Access to the Network Camera from the network.
2. Retrieve live video through Internet Explorer®.



**For more information on camera configuration, please refer to user's manual on the CD-ROM.**

# Adjusting the direction and Silica Gel

## Monitoring on the television

This camera is able to output an analog NTSC video signal and sound from the Audio/Video Out jack in the backside of camera.

Adjustment of Viewing angle is possible using a portable monitor without using a personal computer when installing. Use the included AV Out cable for this purpose.

## Focus button

When adjusting the viewing angle, the camera focus may shift.

In this case, push the focus button in the backside of camera for 2 seconds or more. The zoom lens will move to a wide position and the focus will move to the optimal position.

## **NOTE**

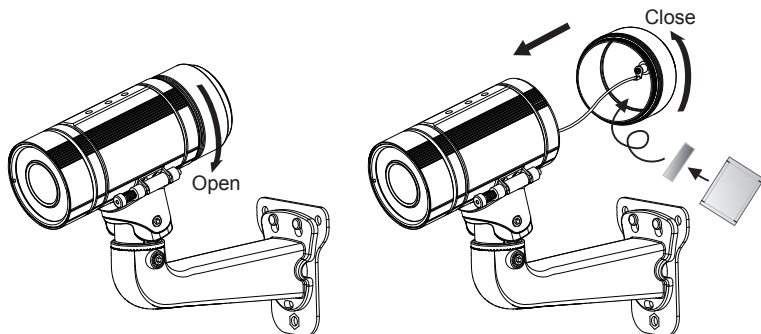
- Depending on an object's conditions, the focus may not move to the optimal position. In this case, focus the lens manually from your personal computer.



### **IMPORTANT:**

*Zoom and Focus adjustment is made via the Remote Focus function on your web browser. There is no mechanical zoom or focus adjustment for the camera.*

1. Adjust the direction of the Camera to aim at the shooting area. (Refer page 12)
2. If you open the back cover when installation, replace the silica gel with a new one as follows.
3. You will find a silica gel bag attached to the back cover.  
Get out the supplied silica gel from the aluminum foil bag, and replace it to new silica gel with supplied double-sided tape.  
(Please replace the silica gel with a new one if you open the dome cover after installation.)
4. Secure the back cover to rotate it in clockwise direction. Make sure all parts of the camera are securely installed.



Treat silica gel bag with care. Do not tear the silica gel package.



### **WARNING:**

*Keep the silica gel out of the reach of babies, infants, and children.  
DO NOT EAT, HARMFUL IF SWALLOWED*

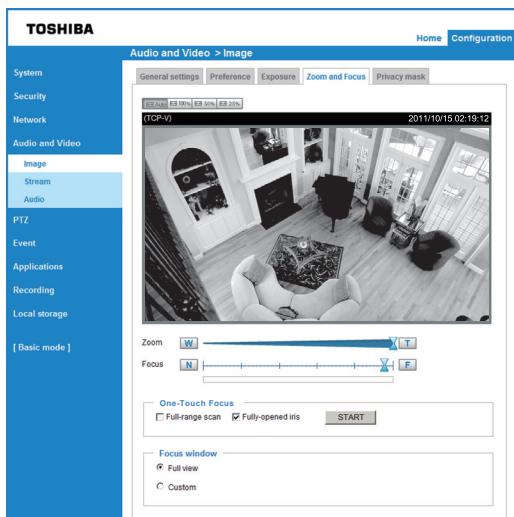
# Adjusting the Zoom and Focus

Access to the Network Camera from the network, and click the configuration button on the main page. Then click the following:

Audio and Video → Image → Zoom and Focus

## To adjust the zoom factor and focus range

1. Use the **Zoom** slide bar to find an optimal view of the area of interest where you want to adjust its focus. Click and drag the double-triangle pointer to rapidly adjust the zoom ratio. The **Focus** pointer moves with the Zoom pointer correspondingly.
2. Select Full view from the bottom of the screen.
3. Click to select the **Fully-open iris** check boxes. When selected **Full-range scan**, a full-range scan through the camera's entire focal length can take about 80 seconds. If not, the focus scan will only go through the length where optimal focus may occur, and that takes about 12 seconds.
4. Click on the **START** button, and wait for the scan to complete.
5. After a short while, the clearest image obtained should be displayed and the optimal focus range is indicated by the densest color area on the color bar. Use the "N" or "F" button to fine tune the focus if you are not satisfied with the results.



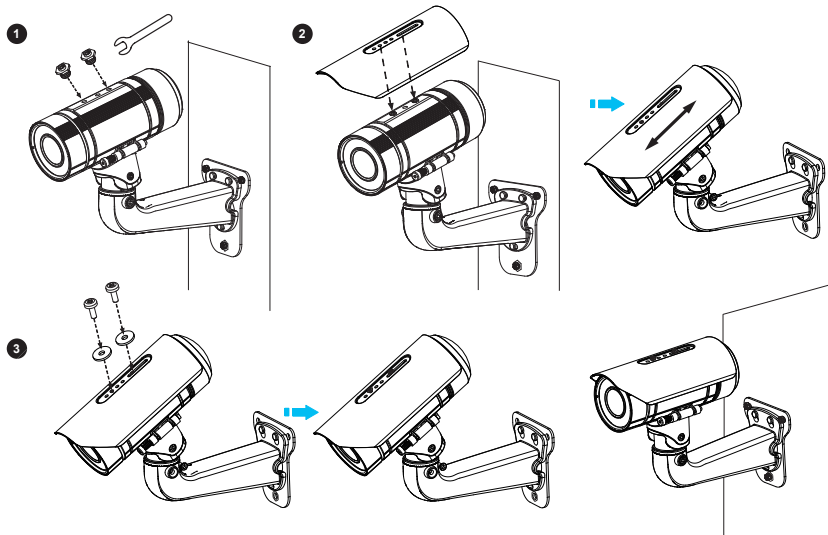
## NOTE

- Verify the zoom and focus from your personal computer after installation.
- (One-Touch Focus) Depending on an object's conditions, focus may not move to the optimal position. In this case, adjust the focus manually via the browser.
- For more information, please refer to user's manual on the CD-ROM.

# Completion

## Mounting the Sun shield

1. Tighten the supplied two hex couplers by supplied hex wrench.
2. Attach the supplied sun shield to the Network Camera and slide it to the desired position.
3. Fix the sun shield with the supplied two screws.



# Trademarks

- Microsoft, Windows, Windows Vista and Internet Explorer are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.
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- Adobe and Reader are either registered trademarks or trademarks of Adobe Systems Incorporated in the United States and/or other countries.
- Other product names appearing in this quick start guide may be trademarks or registered trademarks of their respective holders.

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